Balancing Robot

Kit contains:

- 1 robot template
- 2 pennies
- 1 piece of poster putty

You will need: scissors and coloring supplies.

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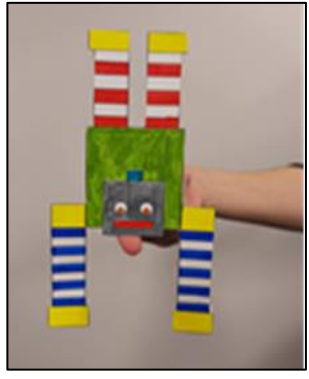
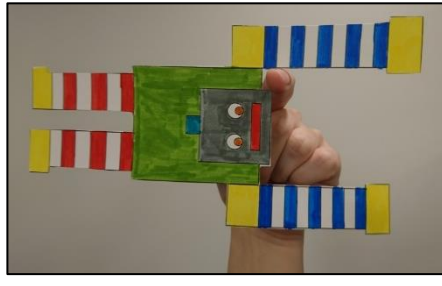
The challenge today is to make the robot in this kit balance on your finger.





Ta-da!

INSTRUCTIONS

Step 1. Color and cut out your robot. That's the simple part!

Step 2. This next step is the challenge.

- Try and balance the robot on your finger with its arms hanging down. What happens?
- Now, use the poster putty to stick the pennies somewhere on the back side of the robot, then try and balance the robot on your finger. What happens?
- Stick the pennies in different places on the robot until it balances on your finger...or a pencil...or even your nose!
- Finally, try to balance your robot sideways. Where do you have to stick the pennies to make this possible?

It's all a balancing act...

When you stick the pennies on different parts of the robot, you will notice that it either balances or falls over. By moving the pennies to different places on the robot, you are changing its **center of gravity**.

Gravity is the force that pulls all objects on Earth downward. The center of gravity is what keeps everything balanced and keeps us from falling over. It is defined as the point where the mass (the stuff things are made from) of an object is concentrated. This point of concentration is where an object balances.

How does the robot's center of gravity change when it's balancing horizontally (sideways) instead of vertically?

Source: https://buggyandbuddy.com/science-kids-balancing-robot-free-printable/